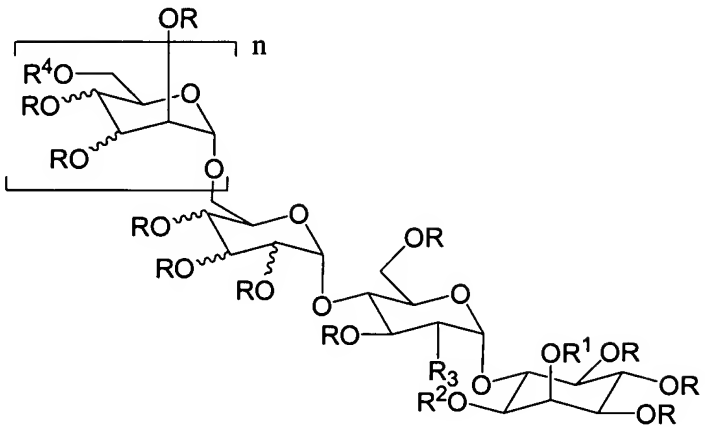
In the claims:

1. **(original)** A compound represented by formula **I**:



I

wherein,

n is 1-4;

R represents independently for each occurrence H, alkyl, aryl, -CH_2-aryl, -C(O)-alkyl, -C(O)-aryl, or -Si(alkyl)$_3$;

R^1 and R^2 are independently H, -CH_2-aryl, -C(O)-alkyl, -C(O)-aryl, -Si(alkyl)$_3$; or R^1 and R^2 taken together are $C(CH_3)_2$, P(O)OH, or $P(O)OR^5$;

R^3 is amino, -N_3, or -NH_3X;

R^4 represents independently for each occurrence H, alkyl, aryl, -CH_2-aryl, -C(O)-alkyl, -C(O)-aryl, -Si(alkyl)$_3$, or -$P(O)(OR^5)_2$;

R^5 represents independently for each occurrence H, Li^+, Li^+, Na^+, K^+, Rb^+, Cs^+, aryl, or an optionally substituted alkyl group; and

X is a halogen, alkyl carboxylate, or aryl carboxylate.

2. **(original)** The compound of claim 1, wherein n is 1, 2, or 3.

3. **(original)** The compound of claim 1, wherein n is 3.

4. (**original**) The compound of claim 1, wherein R is H.

5. (**original**) The compound of claim 1, wherein R^1 and R^2 taken together are $P(O)OR^5$.

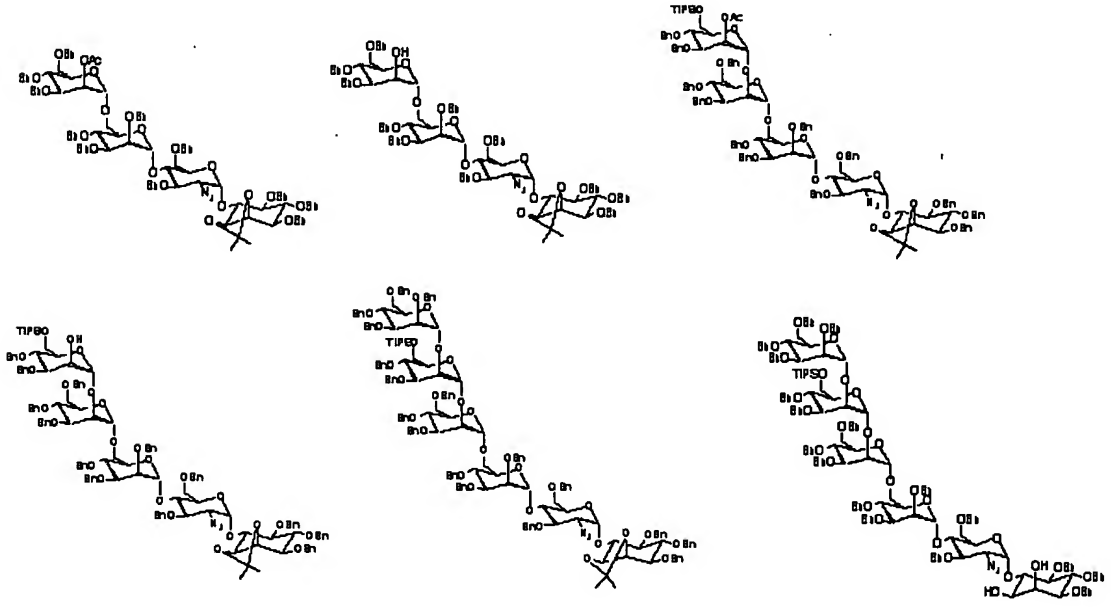
6. (**original**) The compound of claim 1, wherein R^3 is N_3.

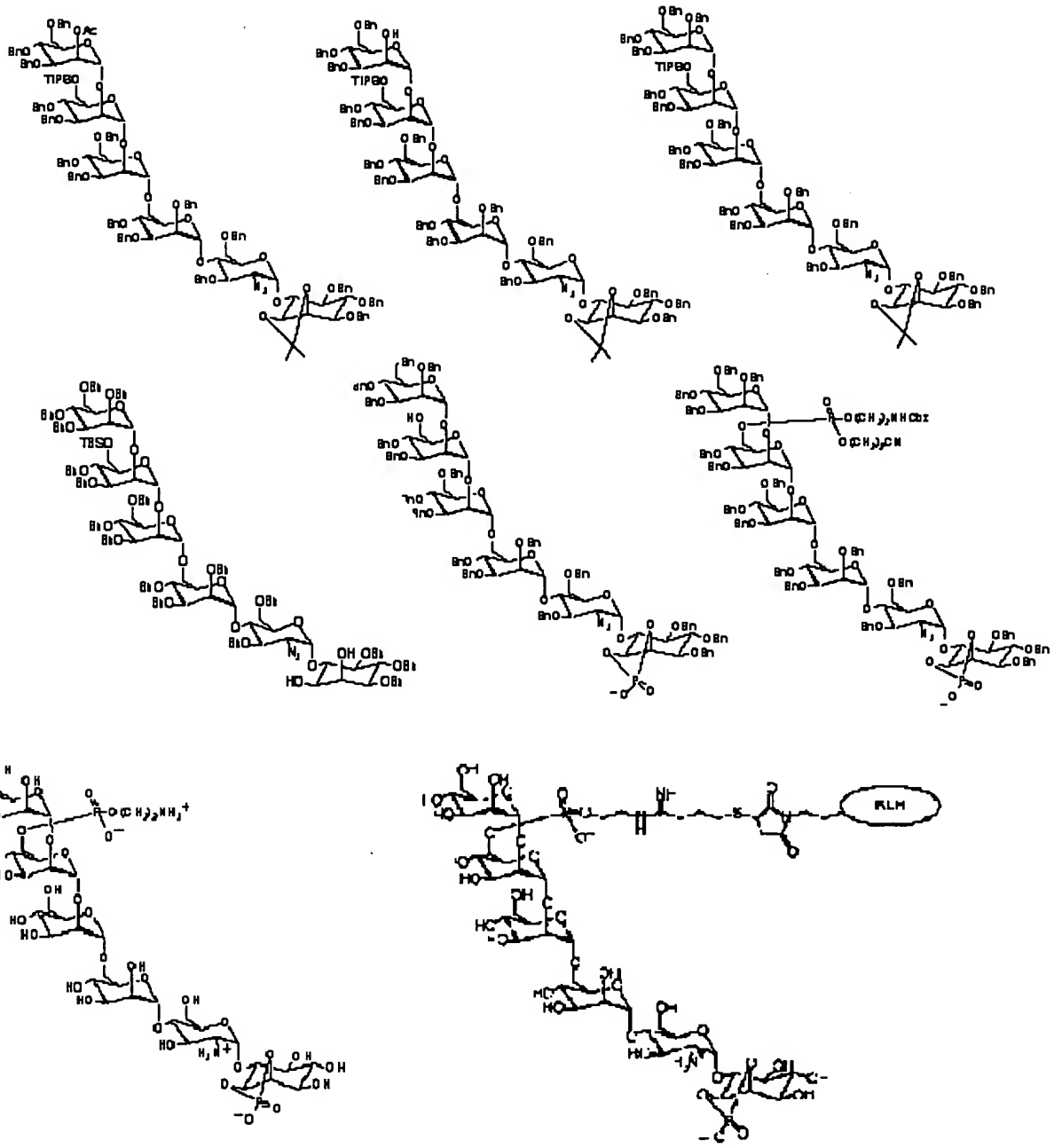
7. (**original**) The compound of claim 1, wherein R^3 is $-NH_3X$.

8. (**original**) The compound of claim 1, wherein R^4 represents independently for each occurrence H, $-CH_2Ph$, or $-Si(alkyl)_3$;

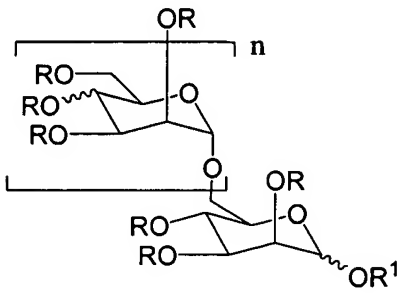
9. (**original**) The compound of claim 1, wherein R^4 represents independently for each occurrence H, $-CH_2Ph$, -or $P(O)OR^5$; and R^5 is an optionally substituted alkyl group.

10. (**original**) The compound of claim 1, wherein said compound of formula **I** is selected from the group consisting of:





11. **(original)** A compound represented by formula **II**:



II

wherein,

n is 1-4;

R represents independently for each occurrence H, alkyl, aryl, -CH_2-aryl, -C(O)-alkyl, -C(O)-aryl, or -Si(alkyl)$_3$;

R^1 is -$(CH_2)_mCH{=}CH_2$ or trichloroacetimidate; and

m is 1-6.

12. **(original)** The compound of claim 11, wherein n is 2 or 3.

13. **(original)** The compound of claim 11, wherein n is 3.

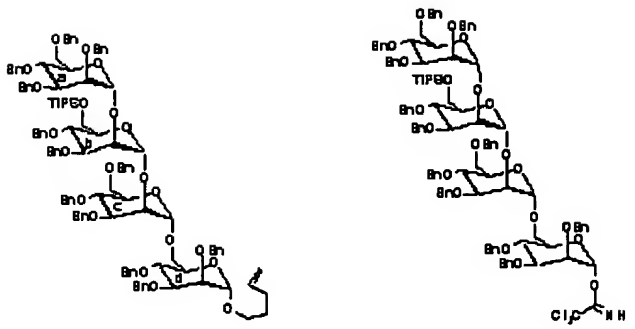
14. **(original)** The compound of claim 11, wherein m is 3.

15. **(original)** The compound of claim 11, wherein R represents independently for each occurrence -CH_2-aryl or -Si(alkyl)$_3$.

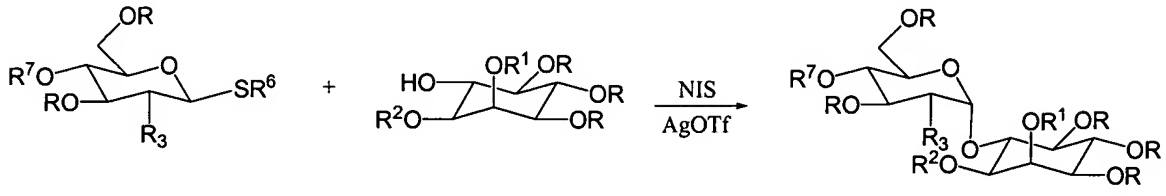
16. **(original)** The compound of claim 11, wherein R represents independently for each occurrence benzyl or -Si(iPr)$_3$.

17. **(original)** The compound of claim 11, wherein R^1 is trichloroacetimidate and R represents independently for each occurrence benzyl or -Si(iPr)$_3$. and

18. **(original)** The compound of claim 11, wherein said compound of formula **II** is selected from the group consisting of:



19. (**original**) A method of preparing glycosylphosphatidylinositol glycans as depicted in Scheme 5:



III IV V

Scheme 5

wherein,

R represents independently for each occurrence H, alkyl, aryl, -CH_2-aryl, -C(O)-alkyl, -C(O)-aryl, or -Si(alkyl)$_3$;

R^1 and R^2 are independently H, -CH_2-aryl, -C(O)-alkyl, -C(O)-aryl, -Si(alkyl)$_3$; or R^1 and R^2 taken together are $C(CH_3)_2$, P(O)OH, or P(O)OR^5;

R^3 is amino, -N_3, or -NH_3X;

R^5 represents independently for each occurrence H, Li^+, Li^+, Na^+, K^+, Rb^+, Cs^+, aryl, or an optionally substituted alkyl group;

R^6 is alkyl or aryl;

R^7 is alkyl, aryl, -CH_2-aryl, -C(O)-alkyl, -C(O)-aryl, or -Si(alkyl)$_3$; and

X is a halogen, alkyl carboxylate, or aryl carboxylate.

20. **(original)** The method of claim 19, wherein R is -CH_2-aryl.

21. **(original)** The method of claim 19, wherein R^1 and R^2 taken together are $C(CH_3)_2$.

22. **(original)** The method of claim 19, wherein R^3 is -N_3.

23. **(original)** The method of claim 19, wherein R^6 is alkyl.

24. **(original)** The method of claim 19, wherein R^7 is -C(O)-alkyl.

25. **(original)** The method of claim 19, wherein R is benzyl, R^1 and R^2 taken together are $C(CH_3)_2$, and R^3 is -N_3.

26. **(original)** The method of claim 19, wherein R is benzyl, R^1 and R^2 taken together are $C(CH_3)_2$, R^3 is -N_3, and R^6 is ethyl.

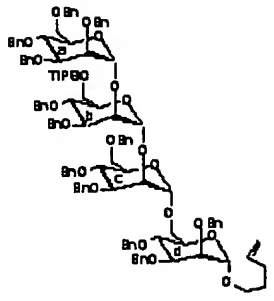
27. **(original)** A method of preparing glycosylphosphatidylinositol glycans, comprising the steps of:

binding a mannopyranoside to a solid support to provide a first substrate, reacting said first substrate with a mannopyranose trichloroacetimidate to give a disaccharide bound to said solid support, reacting said disaccharide with a mannopyranose trichloroacetimidate to give a triisaccharide bound to said solid support, reacting said trisaccharide with a mannopyranose trichloroacetimidate to give a tetrasaccharide bound to said solid support, and cleaving said tetrasaccharide from said solid support.

28. **(original)** The method of claim 27, wherein said mannopyranoside is bound to said solid support through a glycosidic linkage.

29. **(original)** The method of claim 27, wherein said tetrasaccharide is cleaved from said solid support using Grubbs' catalyst.

30. **(original)** The method of claim 27, wherein said tetrasaccharide is represented by formula **VI**:



VI